

**New York State Department of Transportation
STRUCTURES DIVISION**

STRUCTURES DESIGN ADVISORY

Issued by:
MAIN OFFICE
STRUCTURES DIVISION

SUBJECT: PAINTING
BRIDGE RAILING

CODE: 02-001

DATE: Aug. 16, 2002

APPROVED BY:

SUPERSEDES:
None

PURPOSE

This Structures Design Advisory contains guidance on the appropriate method to include painted bridge or pedestrian railing in a Contract.

BACKGROUND

Typically, Item 16572.03M is used to paint structural steel for protection from the elements. This specification requires cleaning to bare metal and then painting with a three coat paint system without galvanizing of the metal.

Several projects have been let with a note on the plans specifying that the bridge railing or pedestrian railing be painted to the requirements of 16572.03M. The designer often includes this note to insure that all of the steel that is to be painted on the structure receives the same color paint for a uniform appearance. The inadvertent consequence of putting this note on the plans is that it supersedes the requirements of 710-23 Steel Bridge and Culvert Railing that requires the railing be galvanized and then painted with one coat of finish paint.

The use of Item 16572.03M for railings results in three coats of paint on the exterior but leaves the interior completely unprotected. When moisture collects inside of the rail elements due to condensation, inclement weather, or road spray, the rails rust from the inside out. This deterioration may take only a few years to become substantial and is difficult to determine from routine inspections.

DESIGNER ACTION

Care should be taken not to include the railing in the requirements for 16572.03M - Shop Applied Structural Steel Paint System. Instead, a note should be placed on the plans modifying the requirements of 710-23 to match the color of the surrounding painted structural steel, if it is different from the rustic brown stated in the 710-23 specification.

CONTACT

Questions regarding this Structures Design Advisory may be directed to Harry White of the Main Office Standards Unit at (518) 485-5748.